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The Director's Corner

G.H. Vineyard

As described elsewhere in this issue of the *Bulletin*, we have recently sent to the AEC our proposed budget for FY 1975 (the 12-month period beginning July 1, 1974). The voluminous documents supporting the budget are put together by Henry Grahn, the Laboratory Budget Officer, and his hard working staff. Most of the items it contains were originated by the scientists and the Department Chairmen. The budget is reviewed extensively by me and my staff and put in final form in my office; it is reviewed again by the President of AUI and the Board of Trustees, before being submitted to the AEC. Thus begins the long and complex process through which AEC funds will eventually be made available to the Laboratory for operating expenses, capital equipment, and construction projects, for a period that begins more than 12 months from now.



Despite the recent funding difficulties for FY 1974, with which you are all too familiar, our 1975 proposal is for an optimistic and progressive program. In high energy physics we are proposing an increased level of personnel to allow the converted AGS and its experimental program to run at something like an optimum rate. We are also asking for restoration of funds to the in-house high energy physics program, and for key improvements in experimental facilities. A construction proposal for the new accelerator, ISABELLE, is not yet ready for submission, but some of the research funds requested for FY 1975 would be used to improve the design and to increase the effort on superconducting magnets and other components for the machine, in preparation for a construction proposal. In low energy physics we propose to strengthen the theoretical group, the Tandem Van de Graaff program, and in particular the nuclear physics program based on the HFBR.

We are also proposing to start construction of a booster cyclotron at the Tandem. This would accept heavy ions from the Tandem and accelerate them to much higher energies, permitting research on the interaction of pairs of heavy nuclei, a new realm of physics. We are proposing again to increase the power of the HFBR from 40 to 60 megawatts by increasing the capacity of its cooling devices. This would increase its flux by 50% and would very much improve its usefulness as a source of neutrons.

In Solid State Physics and Metallurgy we propose to augment the superconductivity programs, to begin research using the new cold moderator at the HFBR, and to increase the studies of radiation effects in various materials.

The Chemistry Department is looking toward exploitation of new opportunities in nuclear chemistry at new and improved accelerators such as the AGS, LAMPF, and NAL, and is proposing enlarged programs in several fields, including neutron crystallography and nuclear medicine. We also expect the Department to be working toward a new experiment to detect low energy neutrinos from the sun.

The Biology Department is planning enlarged programs in a number of its more active areas of research, including electron microscopy, x-ray and neutron diffraction, cellular genetics, molecular biology, radiobiology, and environmental studies. In Medicine, increased support is being sought for the Research Hospital as well as for a number of key programs. Funds are also requested to continue and enlarge an interdepartmental series of programs which may get underway in the coming fiscal year on the effects of environmental pollutants on human beings, animals, and plants. This work will be done in the Departments of Medicine, Biology, and Applied Science.

The Department of Applied Science, which has a complex pattern of programs, is proposing enlarged efforts in atmospheric diagnostics and meteorology; supercon-

(Continued on page 5)

Where The Money Is . . . The BNL Budget For 1975

Hank, you've just finished preparing the FY 1975 budget for BNL. When did you start working on this budget?

It begins way back in January, and that is about 18 months in fact before the start of fiscal year 1975. Two things you have to remember. One is we are funded on an annual basis and the second is we are funded on a fiscal year basis. The fiscal year begins July 1 and ends June 30 of the following year, so when we talk about fiscal '75, what we're saying is the period 7/1/74 to 6/30/75.

So that budget starts a year from now?

Yes. And here we are way back in January, 1973, starting to prepare the budget request for a time period that is going to take place some 18 months away. So we are faced with the problem of trying to determine what some of these costs are going to be in that fiscal year. Inflation of course is an example. How much are we going to pay for fuel oil, electric power and all those kind of things. Some of it has to be crystal-balling, some if it has to be based on discussions with people. In January the Budget Office is getting various forms and documents together to submit to the different departments. We work with ADP, for example, in getting computer runs on all the personnel at the Laboratory by every account.

Early in February we publish a schedule that goes out in a letter from George Vineyard to all the departments, giving them the time table of when the material is due back in the Budget Office. The departments put this material together by taking the personnel sheets and projecting their needs for the fiscal year.

They are filling out their material and supply needs as they see them for that period of time, and very importantly how much they are going to use our various supporting services, like Central Shops, building trades and instrumentation.

Isn't that about the time when we're finding out the bad news on layoff?

Yes, it becomes a very hectic time because the preparation of the budget itself is essentially a full time job for us in this period, and coupled with that, we are getting information about the President's Budget for the very next year coming up, July 1's budget (FY 1974). Unfortunately, for the last several years the President's Budget numbers by and large have not been enough to offset inflation with the result that our anticipated costs at the Laboratory are more than the funding levels earmarked for most programs. So we find ourselves in the midst of trying to adjust our situation to match the President's Budget coming up July 1 and at the same time preparing a budget request for the following year.

The important fact to remember in preparing the budget is that the Laboratory is not funded as Brookhaven National Labo-

Laboratory Budget Officer Henry C. (Hank) Grahn was interviewed by the editor of the *Brookhaven Bulletin* last week about the status of the Fiscal Year 1975 Budget. The taped interview was transcribed, with only repetitious material deleted.

ratory. Very rarely will you see Brookhaven Laboratory mentioned specifically in the AEC's budget submission except in instances such as the AGS. We're funded by over 60 separate AEC research activity lines building up to certain program levels, and every one of them has a budget, and some have been going up, and some have been going down, and some have been remaining stable. These are some of the kinds of problems we face.

So, we don't even, for instance, have a budget for Photography and Graphic Arts or a budget for DAS. It's more an AEC budget for research on concrete polymers or something of that type - a whole budget?

Some departments are funded by a number of AEC programs; others are only



. . . A guy's job may hang in the balance.

funded by one. During this time, the departments have been preparing information for us, in addition to that, preparing narrative material for support of the FY 1975 funding request. In March this material is in the hands of the Budget Office and we're taking it and putting it all together and pricing it out.

So that besides sending a letter in to you saying, "I want x number of dollars for this budget period," they also have to justify it; they also have to say why they want it?

Oh yes, definitely. First the numbers come up - in terms of people, in terms of materials, in terms of capital equipment needs, etc. and we price this all out on various schedules. We put it together, and the narrative material follows. After we've put the numerical data on spreadsheets, we feed them back to the departments. We then have review sessions with department

chairmen, administrators and so forth, and at that point some of these numbers may change because they're not sure what that end number is going to come out to be yet. They've given us certain pieces of this but they don't know what the G&A (General and Administrative) assessment is going to be and they don't know other allocated costs.

In other words, they don't request three janitors and so forth; you have to take that out of all the requests . . . and assign a certain number to them.

It's all part of the overhead. We assess G&A against the direct and distributed labor costs of each research activity as a percentage. For example, in the Accelerator Department, for each account association with high energy physics research we add up the budget for salary, wages and insurance (SWI) of the department people plus the distributed labor costs of supporting services that they buy and add to that the labor cost portion of costs allocated to the activity such as Health Physics and Central Scientific Computing Facility charges. We take the total and apply a G&A rate to it, which in the case of the current fiscal year it is 47½ percent. This amount then becomes the overhead charge to that particular account.

G&A, again, is what?

General and administrative expenses. That's Purchasing, S&M, my salary, the Directors, Fiscal, Personnel, Fire, Police and so forth. These are the services. The basic philosophy there is that wherever we can reasonably allocate the cost directly to a research program, we do so, and it is only those services that benefit the entire Laboratory and where we cannot readily identify them with one particular research program, are the costs that come under G&A. So Central Shops is charged to them directly on the basis of what they buy. Purchasing Division would be charged to the overhead because everybody uses it.

To continue the story on the preparation of the FY 1975 budget submission, in March the narrative material is coming to the Budget Office, in draft. We're looking at it, reviewing it, checking it out. After I'm finished with it, the material is reviewed by the various Associate Directors responsible for the particular research program, and then on to the Director. Changes in the amounts requested, and the narrative justification come about as a result of all this review process.

About mid-March we had put together all the numbers for all the research programs at the Laboratory, built up the G&A that went with it, and I sat with the Associate Directors and the Director and went through all this. The Director then signs off on it and we then go into what we call our production for the Trustees. We prepare what we call a highlights document of our budget, because naturally the Trustees

(Continued on page 2)



At the Medical Research Center Al Wolf of Chemistry demonstrates the interdisciplinary approach to research at Brookhaven for the benefit of members of the AEC Budget Review Committee. From left are: Wolf; Laboratory Director George Vineyard; AEC Controller, John P. Abbadessa, Chairman of the Budget Review Committee; Assistant Controller,

Merwyn C. Greer; Assistant General Manager for Physical Research and Laboratory Coordination John M. Teem; BNL Associate Director for Administration Vincent R. O'Leary; and AEC Assistant General Manager for Administration John V. Vinciguerra.

—Photos by Humphrey

haven't the time to be looking through reams and reams of paper.

Let me interrupt a minute. When you say reams and reams of paper, how much paper is there to a budget? Is it the size of a small book, or is it a couple of sheets of paper?

I'm glad you asked that. Here are some statistics of what the budget looked like over the last several years. If you go back to the FY '71, '72, and '73 submission lists, it was fairly stable in that we had around 1,250-1,300 pages in making up the entire budget submission. But because of the number of copies required, both by various AEC people and programs, and internal distribution, that turned out to be many thousands of pages that had to be printed, and in fact when one expresses it in terms of reams it is like 90 reams in those years.

But look what's happened to us in the last two years. For the FY 1974 submission we went up to 121 reams of paper, and this latest submission we just did as of June 1 was 164 reams. A tremendous increase.

Why is the increase? We're reducing the dollar amount that we're getting . . .

Well, there's an interesting paradox. With less and less dollars you get to the point where you must justify it to greater and greater detail until you go in inverse directions. There's a greater distribution taking place within the AEC and more copies being required both in terms of the local operations office and Washington, coupled with more internal distribution taking place. More people are involved in various segments of the budget these days.

Bob Brown's Photography and Graphic Arts Division prints all the documents for



... Inflation alone gobbles up several million dollars a year.

us and they do a fantastic job because as we're finishing them up here in the Budget Office and sending them up to Bob, generally he has a short turn-around time to print all of this. He's got to fit it in with everything else he is doing, and although the budget gets high priority, he can't let everything else fall behind.

Well, I suppose Bob Brown's unit works overtime on this, but do you people do all of this within your normal work day?

We wished! No, we start out on scattered overtime schedules, and it varies. Towards the end it's long full days for us, extra hours.

It seems to me that working in the same building I've been aware of Sunday work, Saturday work, and hours at night when it gets toward the end of budget time.

Yes, I almost feel like I live here between January and June. In fact, when you get into situations when we have layoffs taking place at the same time, there's a lot of extra effort on our part to be pricing out next year's costs as accurately as possible because a job may hang in the balance. And we certainly want to make sure that the costs we're arriving at are accurate and right, and make sure everyone understands those costs. So we do put in a lot of overtime.

Right now, today, we are working on what budget - I'm getting paid on what budget? The FY '73 budget?

Right. We're in the process now of winding up FY 1973. A few more days it'll draw to a close and out will step Mr. '74. The operating budget is so that whatever monies are not spent or charged to that year's budget are lost. Now we certainly don't want to lose any money, but we're certainly not going to spend money just for the sake of spending it. But there's a lot of situations that develop during the year that are such that your spending is not of a uniform pattern during the course of any 12-month period. For example, social security is an interesting one. Social Security is on a calendar year basis, which starts in January. On

Behind The Scenes

Behind every general there is an army, and behind the submission of the budget, there is also an army.

Beginning in January of every year, the Budget Office starts the detailed paperwork required in the submission of the budget to Washington by June 1. Under the supervision of Hank Grahn, the Budget Office - Ev Heinze, Bob Baldwin, Helen Caisey, Elsie Murgatroyd and Gerry Blackford - is resigned to six months of meetings, phone calls, drafts and redrafts and too much coffee.

As if they did not have enough to cope with, the AEC this year changed the accounts from a 25-year old numbering system to a letter code, and the once familiar accounts became strangers.

Of the nearly 20 schedules required, the ones that make administrative personnel in the departments think longingly of leaving for far-off places, are the 21a's and 189's. These forms are the analysis of and justification for operating costs.

Riding herd on the typing of these forms is Helen Caisey. For 12 of her 13 years at the Laboratory, she has had this annual headache. She must go it alone except for six weeks when she is assisted by a full time

and part-time typist and, with great efficiency makes sure that Brookhaven's budget is letter and number perfect.

Try calling anyone in the departments who is working on a 189 deadline. You will be greeted by sobs, gnashing of teeth and less polite forms of expression. The typing must conform to precise instructions as to margin settings, how far to go down on the page and so on.

The budget submitted this year for FY 1975, consisted of (count 'em) 81,983 pages and consumed 164 reams of paper. Twelve "books" makes a complete budget and many copies of these books are submitted. These precious documents are then wrapped in brown paper, sealed, and transported by Laboratory police to police HQ, where they are picked up by a Lab driver and driven to AEC headquarters in Washington for distribution.

Early next year when the call goes out and Helen says "189," don't hide under the desk and say "Oh no, do we have to go through that again!"

Yes, we do. To get the money to operate, we have to submit a budget and that means probably another 164 reams of paper and working late and too much coffee and . . .

coming up. And so, good management dictates that we certainly don't want to bust our budgets this year due to things like severance pay requirements and so forth. We've got to make sure we've got enough money to cover winding-down - our going rate - into the new fiscal year. So, we generally ask departments to go slow in their spending patterns - their normal spending patterns - until we're able to assess the impact of the President's budget for the next year, till we're able to determine how many people may have to go, and what will our severance pay costs be if we do that. If we have certain closeout costs for an activity, for example, in the Isotopes Development Program, we immediately try to slow down our spending pattern in a number of areas until we can assess the impact of what that closeout means to us, and what extra costs are we going to incur because it's shutting down. Shipping out radioactive materials and decontamination work, and so forth,



... There are no anticipated layoffs at this time!

and we have the severance pay and all these kinds of things. Good management dictates that you do this until you're really able to shake out where you are in terms of next year so we can provide the proper severance pay and other costs from this year and not bust this year's budgets. And we do that. Coupled along with that, though, is another problem. We're funded on an annual basis, July 1 through June 30, but the way it actually works is that the President's budget which we've been told about is just that for the moment - the President's budget being submitted to Congress - and right now at this time it's working its way through Congress as an authorization and then an appropriation bill. It's usually the late fall or winter before we receive the firm financial plan, before the President's budget has made its way through the Congress, been authorized and signed off by the President, issued out to OMB (Office of Management and Budget) and they in turn issue allotments to the AEC, which in turn issues us a firm financial plan.

Now those numbers earmarked for BNL programs sometimes can change, and have changed over the years. Sometimes there has been a reduction from the President's budget, which has affected the Laboratory, and so we generally act somewhat

conservative in our spending patterns the first half of the fiscal year because we're not really sure what that end number is we're looking at for each program. And here again, I think prudent management dictates that we don't put ourselves in an overspending situation, in the early months of the fiscal year, when there's the distinct possibility that we could take a cut in the President's budget.

So in other words, what you're saying is that you say ease off on everything. OK, you have approved money to pave a road, but the Laboratory is not going to suffer if the road isn't paved if we run out of money. So you're going to wait until the last minute to do that paving because you want to see if that money is still going to be there?

That's part of it. In addition to that, too, there's all kinds of possible contingencies that can occur during the year, and I have to allow for the possibilities of some of these things happening. For example, we might



... Some of it has to be crystal-balling.

have a roof that starts to leak very badly, which we didn't realize and didn't anticipate, and where would the money come from to fix that if we weren't holding back and being somewhat prudent in the G&A area? That could mean the Laboratory might have to fire some people in order to provide the money to fix the roof. And so not being able to crystal-ball everything that's going to happen during the year, I am purposely conservative in some spending areas, to take care of some of these possible emergencies as they occur so it wouldn't affect people's jobs.

Well, the later you get towards the end of the fiscal year, the less likelihood something is going to happen. And so, when you get down to the last 60 days of the year, if you haven't had all the possible problems you might have anticipated and you have a few dollars left over, well then you will use them to take care of the repairs - which you normally would have done during the course of the year if you knew for sure you weren't going to have any other problems.

You can't take that money, for the roof we'll say, and transfer it to the next year's budget?

No. The money must be spent in each fiscal year in the operating budget. It's an annual appropriation and it must be costed out in that fiscal year.

Money comes to us in three different ways. In the operating budget we have the least degree of flexibility. This is the money that is appropriated to us on an annual basis to be spent in that fiscal year. With capital equipment funds we have a little more degree of flexibility in that purchase requisitions and purchase orders issued during the fiscal year count as obligations against that year's budget and we do not lose the funds so long as we process the purchase requisition and it is recorded on the Fiscal Division's books at an estimated amount. The labor charge to capital equipment projects, however, must be actually charged to the project in that year.

The third type of money is construction funds. This is our annual appropriations of general plant project funds, accelerator and reactor additions and modifications, and major construction projects such as the AGS conversion. Here you have the greatest degree of flexibility in that the year in which that money is appropriated and obligated to Brookhaven, that money is ours and will not be lost, and we can do the job in the normal course of time without having to worry about the costing aspect as such. I mean your estimate still has to be good in terms of doing the work, and staying with the total amount of funds authorized, but you don't lose the money because it wasn't all costed out in one year. A good example of that is the AGS conversion. That was a project authorized in FY '66 and we're still working against the project now, still charging expenses to it.



... Does somebody dump it in the river, or what?



... with less dollars you must justify in greater detail.

Let me just go back on the budget submission again. We go to the Trustees in April with a 25-30 page document which gives the highlights showing our operating budgets by AEC programs, capital equipment, manpower, construction, and so forth. It's presented to them and reviewed with them. Having done that, we go into full-blown production of the budget. Bob Brown's shop does it for us in pieces, and it takes about a full month to produce. Generally on the last day of May a driver from S&M loads the budget documents for distribution to the various AEC research Divisions in a station wagon and delivers the material to AEC Headquarters. He hand delivers the budget material directly to the AEC mailroom in Germantown, Maryland, because, God forbid the budget would get lost with all the work that went into it. At the same time, a number of copies of the entire budget submission is forwarded to the AEC, Brookhaven Area Office for their use. They then forward several copies to the Chicago Operations Office who in turn transmit one copy to the AEC Controller's Office in Germantown, Maryland.

We've now got the budget in Washington and it has a certain amount of dollars connected with it. What is the total budget that we're talking about? How many dollars are we talking about from now on?

We're talking now about the '75 submission, right? OK, the Laboratory's budget this fiscal year (FY 73) is slightly in excess of \$50 million (we had a last minute change the other day). \$50,295,000 is this year's total AEC operating budget for all of our programs. Next year (FY 74) the President's budget is \$48,119,000 as we were officially notified in February. There have been a number of discussions taking place since then, however, with various AEC people both here and in Washington, and a number of programs will be higher than what was originally in the President's budget, and there are some new programs being instituted, and there are also some programs that were started late in fiscal '73, for example, in the regulation area, which were not in the President's budget at the time that was prepared last winter by the AEC people. Our revised request is \$52,736,000 from the AEC for fiscal '74, and our initial request for '75, which is really the budget year we're talking about here, is \$64,183,000.

One question about that. Is it good practice to request more money than they seem to allot to us each year? Last year I believe we requested something like 62 or 63 million and we got 48 million, and this year we're doing the same thing. Why do we do that?

Well, we've always taken the philosophy that our budget request will be realistic in the terms of what we feel we would like to do and the kind of programs we would be in a position to mount. It expresses opportunities that we foresee to do a lot of good research and good science and in many instances to build back the strength which previously had been taken from us either through inflation or reductions in dollars. Inflation alone gobbles up several million dollars a year. Heating fuels and electric power costs are skyrocketing. Fringe package costs are going up, medical insurance, social security costs, many costs totally out of our control are rising rather rapidly, and we're talking about a year that's 18 months away.

Well, you are not preparing the budget for Brookhaven Lab without guidance from the AEC, are you?

Right, we have received what we call program guidance letters from each of the program divisions in Washington. You know, it's kind of a mixed bag. In some cases our requests are essentially mirroring back the kind of things that the program guidance letters have said to us; in other cases we definitely have foreseen certain

opportunities we'd like to exploit and we're asking for the money to do those kinds of things, which may not necessarily have been in any program guidance letter because the AEC itself wasn't even aware that we may have an expertise or be wanting to go in a certain direction. The thing you have to understand is that first of all, before the budget is even submitted, we frequently are receiving in addition to the guidance letters, various AEC program directors and other high officials in the AEC meeting with us. For example, a good case is the Division of Biomedical and Environmental Research. These people came and sat with us, and our people also went to Washington to meet with them, and discussed the total program here at the Laboratory and the kinds of things they'd like to see us doing, and in fact encouraged us to submit a revised request for next year which, in fact, is considerably more than the President's budget. Now, in some of those pieces that make up the revised request, they have said specifically, Yes, they will be funded, and at a certain amount. In other cases they have indicated to us they're very interested in the program or they think it worthwhile to some extent, but without indicating a dollar amount. And in other cases they say that sounds good, submit it - I'd be interested in reading it, and maybe we can do something for you, but no assurances of any kind.

Our entire request from the Division of Biomedical and Environmental Research for next year, which is considerably above the President's budget, was all based on discussions with people down there as to the kind of things we'd like to do and the numbers of people we'd like to have in connection with the program, and we were encouraged to submit that revised request.



... God forbid the budget would get lost!

So now, the budget is down in Washington.

OK, on June 1st it goes to the AEC. Now what happens to it? Does it get lost in this mass of Washington, and does somebody dump it in the river, or what? Once the budget reaches Washington, it is distributed to the applicable AEC research divisions responsible for the area in which we are requesting funds. The material is given to the program directors and then down to the branch chiefs and so forth. Reviews are going on within the AEC about our budget, other labs' budgets, and other contractors, all making up their total research activity.

We know they read these budgets because we frequently get questions back from them about some segment of the budget we submitted. For example, on June 13th the AEC budget review committee was here composed of Chairman John Abbadessa, AEC Controller, and other high AEC officials to hear a one-day pre-

sentation about our '75 request. They asked a lot of pointed questions about the Laboratory's operations and the kind of things we're asking for, construction projects and manpower levels and so forth. The high energy physics people will be here later this month. Last week there were some people here from the Division of Biomedical and Environmental Research in the area of environmental activities. They are reviewing our budget from the time it's submitted, June 1, to the fall. The AEC is finalizing on their overall budget, just as we had done previously here. They then submit that budget up through their various review committees right up through the Assistant General Manager and their own internal budget review committee and the AEC Commissioners, finalizing on numbers, and then they present that to the Office of Management and the Budget. The Office of Management and Budget is an all-powerful agency. They control the purse strings of every federal activity that is taking place, and their review takes place with the AEC. As a result of that review they get back what they call an OMB markup. This is occurring in the fall. We're only a portion of various segments of the AEC's budget. They're talking about high energy physics, for example, of which we're only just one area. By December of 1973, the AEC must finalize on an overall budget with OMB, with OMB essentially having the final say. When they get an OMB markup they can appeal, and they frequently do, and they're sometimes successful in getting certain numbers restored, and other times they're not. But then based on the finalization of the OMB appeal, they must then prepare their budget which is backing up the President's message. Then, in January of 1974, the President will announce his budget to Congress and transmit it a week later. Then the AEC's portion of the President's Budget will be transmitted to the Congress and will be introduced into the Senate and into the House and from there it's referred to the Joint Committee on Atomic Energy. And hearings begin - authorization hearings. And those hearings will be taking place all during the spring of 1974 with various AEC officials testifying in support of the budget requests. As a result of those hearings, some numbers will go up and some will go down. Some of them may affect Brookhaven, some may not. When the Joint Committee completes its hearing they agree on a final figure for each program of the AEC, and an authorization bill is passed out onto the floor and has to be approved in the House and in the Senate. This is only the first step. The next thing you need is an appropriation bill. The appropriation bill starts out in the House of Representatives. Hearings are held there, by the Subcommittee of the Committee on Appropriations, and various AEC people testify before that group.

Isn't this the sort of thing where last spring George Vineyard went down and testified?

Yes, Dr. Vineyard was testifying in front of the Joint Committee, helping the AEC support its budget. At various times the AEC people will call upon laboratory personnel to help them in defending their budget to the Joint Committee. These hearings go on and the appropriations bill will eventually be passed by both the House and the Senate in the fall of 1974. Remember, the fiscal year started in July and here they are just passing the appropriations bill, probably around November. So, we're already well into the year in question. That's why I'm telling you we have an initial financial plan given to us - an interim plan, a temporary plan - but we really don't know our

end numbers yet, so we don't know how we're all going to come out. The bill is then signed by the President, transmitted to the Office of Management and Budget where an allotment is made to the AEC who in turn issue BNL a firm financial plan for FY 1975.

So then from July 1 until this time in perhaps November you might have a budget but you're not sure you're going to get the money for it?

We will have a budget, but we're not sure exactly what that end number will be, if it'll go creeping down somewhat, and take a cut. And this has happened; for example, last year. The President's budget essentially wound its way through Congress for those areas that affected Brookhaven unscathed. And based on that, we normally would have gotten the funds that we had been told were in the President's budget for us. But what happened is that the President then made a decision to try and cool down



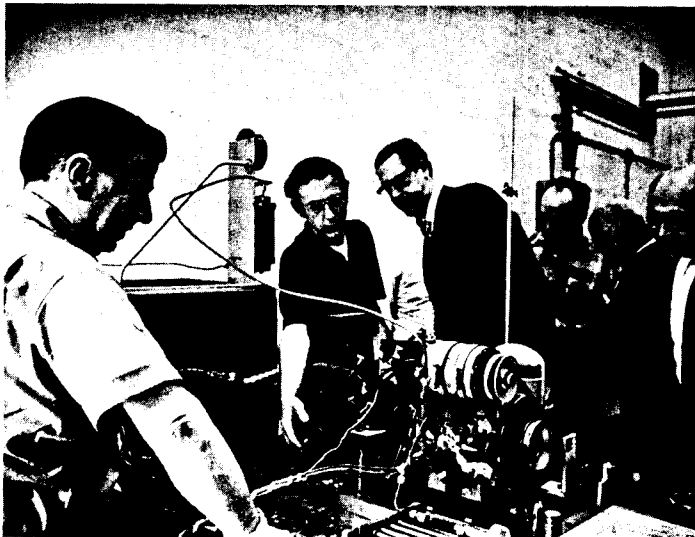
... Oh, we get rumors too!

the economy and slow down spending, and he authorized OMB to hold back funds which had been approved for the AEC and other agencies. As a result of that, we were given a \$400,000 cut in high energy physics, and cuts in other areas as well, and we had to pull in our belts and make adjustments at that point - halfway through the fiscal year - and we didn't expect that kind of a cut. So these are the kinds of reasons why I say one has to be conservative in their spending in the early part of the year, and what looks like spending for the sake of spending towards the latter part of the fiscal year is not, in fact. It is prudent management which dictates that if you hadn't been conservative early in the year, you might be in an over-run position in the latter part of the year. We wish we had a firm budget July 1 of each year, so we could work with it - know in fact that was really the dollars we're going to have for that whole year, so we could adjust our spending much better.

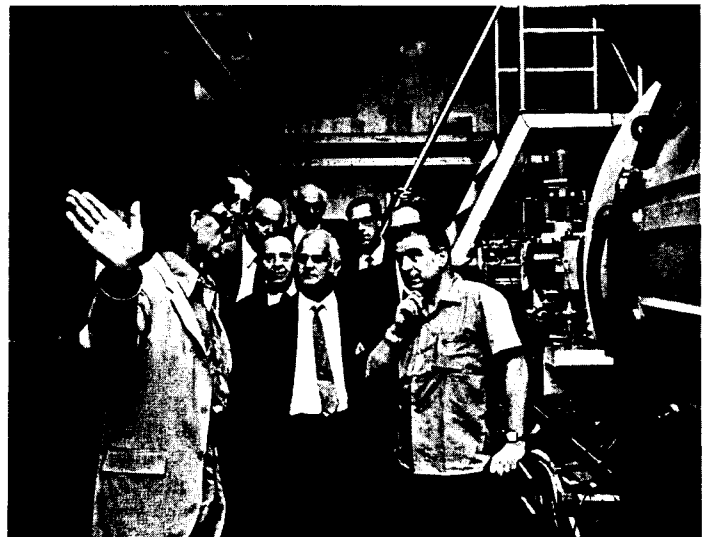
The final step, then, is somewhere around November or December of the year before we really have the firm budget for the year. That is usually the time that you can then say, OK, until the next July 1, we're generally set on the amount of money we have.

There's a rumor going around the Laboratory that in figuring the severance pay for the last lay-off, that the Lab paid out too much and because of that, Brookhaven was in trouble. Would you care to comment on that?

Well, we had held up our spending, as I said, purposely, until we were able to assess the impact of the layoffs, and at the same time the Laboratory was looking to try to improve their severance pay position so that we could have employees who would be terminated in a better position. An older employee going out the door may in fact have a more difficult time finding



Jim Reilly, DAS, (center) demonstrates hydrogen fuel to John Abbadessa (left) and George Vineyard.



R.R. Rau explains the 200-MeV linac to members of the Budget Review Committee.

new employment, or certainly possibly not as rapidly as a younger employee. And this would ease that kind of a problem for that individual. There's a lot of other philosophies that went into the packet and that's just one of them. The total severance pay package that we paid out as a Laboratory (and again remember it had to be paid out within each individual AEC budget activity the employees were charged to) was more than what we had in the salary and wage budget for the year. But because we had exercised prudent management and held up our spending plans for materials and supplies, we were able to provide the difference that was necessary through use of those funds in each of the AEC activities where these people were being terminated.

So there wasn't any emergency situation or over-spending in it. It was an unplanned for expenditure but was taken up in other ways.

Yes, because we purposely held up our spending until we were able to assess that, and then provided where we had a problem of differences, out of what we would normally spend for materials and supplies. But if we hadn't done that, we would have been in an over-run situation. As it appears now, we expect to come out very nicely for the fiscal year and adhere to all our AEC ceilings, which requires a concerted effort on the part of everybody to do their job.

Speaking of rumors again, there have been rumors around the Lab for quite some time about a big layoff that's going to occur in June or July. Would you care to comment on that?

Yes, I'd like to very much. At this point in time, we do not anticipate any further reductions in staff on an involuntary basis.



... There are seven stumbling blocks to the Lab's budget.

But that of course has certain assumptions, though, and one is that the President's budget will not be cut, or cut in any fashion that would have any serious effect on the Laboratory. We have developed a going rate and adjusted ourselves to that going rate to move into next year based on the announced President's budget levels and certain other increases in several areas based on subsequent discussions with AEC officials. And in fact our revised request for FY 74 is considerably more than the President's budget, and if some of these activities come through, we might even possibly be hiring several people. There are no anticipated layoffs at this time, on the assumption that the President's budget will hold up for us. And that has always been our position in the past few layoffs. We have essentially "bit the bullet" as you might call it, at the time we were given the President's budget numbers and made our reductions in staff at that time or shortly thereafter to move us into the next year, and we do not foresee any further reductions in staff at this time. We have bedded down essentially all of our costs, certainly all in terms of people, and unless there's a downward change in numbers in the President's budget for us, we will not have any further reductions in staff.

However, isn't it true though that there will be some terminations on June 30, more than the normal half a dozen that we see in the Arrivals & Departures column? What is the cause of these extra terminations that come about?

We have a small number of scientific staff personnel who will be going out the door around June 30, under the terminations orders for them. They were given 4 months notice, and they were given that notice back in the spring. They are, in effect, part of that reduction in staff, and they were notified at the same time all the other employees were notified, who went out the door at the end of March. We consider that part of the same total layoff situation.

Will you also have some terminations of people who were here on a term basis, a researcher that

was appointed for a year or something like that, or is on a program that he was not a regular staff member but some other category?

Yes, always. The thing you want to remember is that in any given year we have a number of scientific appointments who are here on 1 or 2 year terms. And there's always this kind of turnover taking place. The high point of that occurs between the period of June and fall when the academic year starts. We always have this kind of a turnover taking place. We have built into our budget either that individual or his replacement, and sometimes we're considering him as part of our attrition. But those are individual decisions made by each department and division, how they're going to adjust to next year's budget. We also have a small number of temporary help in the summer, in fact we've cut down dramatically in this area in the last few years, but we do have this small number aboard. We have a visiting scientific staff program where scientists come in for the summer to spend time working here at the Laboratory, and we have our summer student training program in the now defunct Division of Nuclear Education and Training where the summer students come in.

Last year we had something like 80 in that program, and I notice that this year there are only 57.

That has occurred because we took a reduction in funds from the Division of Nuclear Education and Training and as a result we couldn't afford to carry as many personnel.

Well, then, it would be safe to say that there probably won't be any surprises for individuals in layoffs or terminations in the next couple of months?

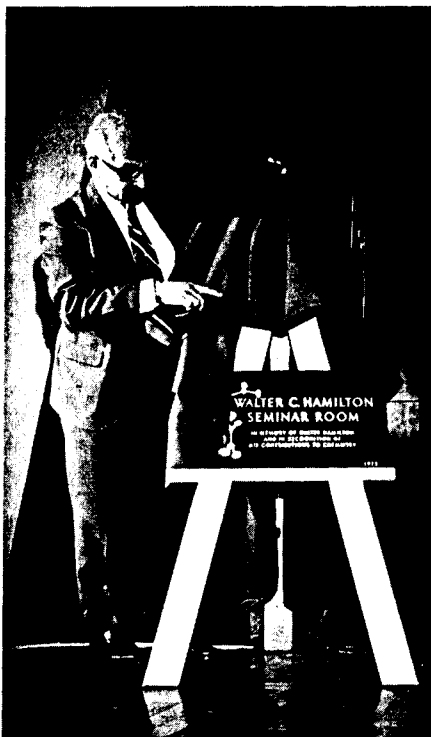
That is correct. Now I'd like to reiterate the 7 stumbling blocks to the Laboratory's budget. It's important, because these are cuts that can happen to the Lab's budget which are totally out of our control. And that's why I say we have to be conservative in our spending plans in the early part of the year because all of these things can happen to us, and if they all happen it could be disastrous. One is, once we submit our budget the AEC may cut our budget. Beyond that, the OMB may cut the AEC, and they do. And that certainly may have an effect on Brookhaven's programs. The third is, then once the bill goes over to the Congress, the Joint Committee on Atomic Energy will propose changes to the AEC's budget - some up, some down, and some of those could have an effect on Brookhaven's budget. Out of that comes an authorization bill, and that could have an effect on Brookhaven's budget depending on how that's passed, in what form and so much and so forth for the various programs. The next you have is the appropriation bill, which goes through the same process, and that can have some changes up and down and that can affect Brookhaven in some of its programs. Then the money is appropriated by the OMB. Oh, I'm sorry, OMB may not pass on the full allotment to the AEC, even though the money was appropriated. The President may decide that he wants to hold down spending, and even though the amount was passed by the Congress, he may not appropriate it all to us. And lastly, the AEC itself may hold back funds from us. They may have a change or reprogramming, they may decide that because they took certain cuts they'd rather distribute the funds in a different fashion, put more into this kind of research and less into that, and so forth, and so they may cut us in the final analysis, even after they've gotten the appropriations. So there are 7 stumbling blocks to the Lab's budget which are totally out of our control, and over the years we've generally fared well against those kinds of cuts, but they're always there and we have to be on guard against them.

But these are all things that, at this point in time, you have no awareness that any of these things are going to happen. They can happen, but nobody back here is sitting in an office saying, Gee, I'm not going to tell the rest of the Lab but we've lost so many dollars or something like this?

That's right. As it stands right now we have no further information on the President's budget for Brookhaven that is detrimental to us. Our game plan from this point so far looks good, but any of these things can happen to us, and that's why I make the statement to you that at this time we do not anticipate any further reductions. If any of these things happen unfavorably for Brookhaven, it could mean layoffs.

Predictions are always bad in every way, but I would still like to ask you. What is your personal

(Continued on page 5)



Chemistry Department Chairman Gerhart Friedlander unveils memorial plaque that will hang outside the Chemistry Symposium room.



R.A. Young, President of the American Crystallographic Association (left) and David P. Shoemaker, Oregon State University, discuss appreciations of Walter Hamilton with program coordinator Robert Thomas (right) of the Chemistry Department.



Vernon Schomaker presented the first technical paper at the Walter Hamilton Symposium on Friday, June 15, 1973.

Symposium Honors Walter C. Hamilton

Scientists, friends, and relatives of the late Dr. Walter C. Hamilton gathered at Berkner Hall on June 15 for a conference in his honor. The Walter C. Hamilton Symposium, jointly sponsored by BNL and the American Crystallographic Association, was attended by 110 participants.

Following opening remarks by BNL Director George Vineyard, Chemistry Department Chairman Gerhart Friedlander dedicated the seminar room in the Chemistry building to Hamilton. The Walter C. Hamilton Seminar Room will contain a plaque, unveiled at the symposium, in memory and recognition of Hamilton's contributions to chemistry.

Hamilton, who died in January of this year at age 41, spent most of his scientific career at Brookhaven. He was a senior chemist and Deputy Chairman of the Chemistry Department. In 1969 he was also president of the American Crystallographic Association. "His knowledge was encyclopedic, and yours for the asking," said symposium chairman R.A. Young. Hamilton's work in neutron diffraction made him a world leader in crystallography.

Several of Hamilton's associates spoke at the conference, including Dr. Verner Schomaker, Hamilton's thesis advisor at the California Institute of Technology, where he received his Ph.D. in chemistry in 1954. Schomaker delivered a paper on "Difference Maps and Least Squares." Another colleague, James Ibers, with whom Hamilton collaborated on volume 4 of the International Tables of X-Ray Crystallography, delivered a paper entitled "Chemical Crystallography."

Following lunch, Philip Coppins of SUNY, S.C. Abrahams of Bell Laboratories, and Alexander Rich of M.I.T. also addressed the assembly. A tour of the neutron diffraction facilities at the High Flux Beam Reactor ended the one-day symposium for its participants.

Blood Drive

Maximum efficiency is the key to this year's blood drive. When the Bloodmobile of the Greater New York Blood Program comes to the Laboratory on June 28 and 29, plans have been made to accommodate approximately 25 donors every 15 minutes, the average donor being able to complete the process in 45 minutes or less.

As of this writing, close to 600 donors have pledged to give blood. According to Blood Program Chairman Alf Christoffer, "The blood drawn on these days covers the 4th of July requirements for Long Island." If a sufficient number of Brookhaven employees and their families volunteer, every employee of the Lab will be covered.

From Brookhaven the blood will be sent to New York City for processing and then returned to Long Island. Upon arrival at the processing center, some of it will be separated into fractions by a centrifuge. Various blood components may then be used immediately or frozen for future use.

Arrivals & Departures

Arrivals

Ragna A. Davidsen Medical
Joan H. Glasmann Applied Science
David S. Johnstone Plant Engrg.
Walter L. Kalinowski Applied Science
E. Boyd Osgood Physics

Departures

James J. Conway Accelerator
Victor N. Crump Plant Engrg.
Clark Gardner Applied Math
Otto H. Jacobi, III Accelerator
Sidney W. Jungreis Medical
Charles A. Kelley Plant Engrg.
George Mann Plant Engrg.
Janet A. Micallef Director's Office
Christina W. Teng Medical

In Memoriam

Andrew Olsen of Plant Engineering, who had been employed at the Laboratory since March 21, 1947, died on May 28 at the age of 63.

Budget (continued)

feeling as a budget man about the climate of the AEC spending this year as compared to last year? How do you feel about this baby that you've put together, this 64 million dollar request for FY 1975? Do you feel it's a real good one? Do you feel it has a better chance than last year's? Have you got any indications of any change in climate that would be favorable to Brookhaven?

I have to crystal-ball it, but as I put the budget together and could read the enthusiasm of all the areas on site putting together their requests, I think we have good, strong and healthy programs in many areas. For example, high energy physics is a good case in point. Here we have essentially a new AGS coming on line after the conversion was successful, with many more beam spigots, a greatly expanded program, and I think we're making a very good and strong pitch that we can do a lot of productive and good research given the kinds of funds we're asking for. I think the AGS has a very strong program coming. In the Physics Department, for example in low energy physics, we have a Tandem Van de Graaff that is essentially being used 50% by outsiders. It's running full blast, a very productive facility. I see that as a very strong program for us. These are just two examples, but one could cite many more. I believe on balance the AEC considers BNL as a viable and productive laboratory and within the total framework of funds available to them, they will do their best to support us.

Are you saying to me now that one difference in this year's budget is that people are going into new programs that seem to have been demanded by the scientific community and that they are justifying better than in the past, that we have perhaps a little bit better reasons for getting the money than we might have had in the past?

Well, I think there are several answers to that. One is that I think we're being receptive to the type of things that the AEC would like to see done and is looking to do itself. For example, we have proposed a number of new programs to the Division of Biomedical and Environmental Research in the area of non-nuclear effects of pollutants. This is an area that this AEC division is expanding its involvement in, and we're looking to do a lot of things in this area. We're very enthusiastic that some of these programs can get off the ground and apply to us. We are also starting up several new programs for the Division of Waste Management and Transportation, and Regulation in the Department of Applied Science.

It seems to me that last year we had some stories about work for others and how that has gone up dramatically in the past couple of years. Is this on top of the 64 million dollar request that you're putting in for '75?

Yes. Work for others at the Laboratory goes back some years in time, about 1965 it was essentially non-existent, and it was a small amount of dollars several years after that. Last year we actually spent somewhere in excess of \$2 million in work for other federal agencies. This year we should cost out close to \$3 million in work for other federal agencies, and next year we already have in hand funds approved and authorized totalling around \$2.5 million. We have about 75 people who are directly supported by work for federal agencies. It seems to be a mixed bag in the sense that we do work for a number of other agencies. Some of these are several years' money and others are shorter than that. It's a very important adjunct, I think, to the Laboratory that essentially all the work we do either complements or supplements the work the AEC supports. In all cases, we have to have their approval anyway. It's a further supplement to the kinds of things we're doing for the AEC.

What is your forecast on these funds for the '75 fiscal year?

Well, that's very hard to project because we don't know what particular proposals will be initiated and approved for funding by other federal agencies. We haven't got the kind of experience we had with the AEC in a continuing strain of work with some of these projects in whether they'll hit or miss, but I foresee that work for others will probably bring the Laboratory several million dollars in FY 75.

It seems to be increasing in the amount of dollars that we have available to us rather than declining?

As I say, this year we expect to cost out about \$3 million and next year a conservative number is 2½ million because that's how much we already have in hand, so anything else that comes along during the year will certainly raise that figure. The

Director's Corner (continued)

ducting power transmission (a joint project with the Accelerator Department); development of medical isotopes; the technology of controlled thermonuclear energy generation; technical assistance to the regulatory part of the AEC; and techniques of management of radioactive wastes. We are also proposing to expand substantially the new analytical study programs on national energy system and on the biological and environmental consequences of non-nuclear power generation.

The request also includes increased funds for reasearch in Applied Mathematics, and for the research programs in the Divisions of Instrumentation and Health Physics. The various service and administrative divisions of the Laboratory, of course, are financed out of the budgets for specific scientific programs. Increases in these programs would be reflected by increased needs for supporting services.

The operating budget proposed, which allows for inflation and other cost increases as well as for additions to programs, totals \$64 million, about 28% above that for the current year. In addition there is \$8.3 million of capital equipment and \$19.4 million of various construction projects. All of this is the proposed AEC part of our support; another 8% or so of our operating budget now comes from other agencies, and this support has been increasing.

Bear in mind, however, that we never have received all of the funds requested, and the discrepancy from our request usually is considerable. The budget I have been discussing will not become final until sometime in the summer or fall of 1974. Thus we must continue to plan to operate conservatively, while doing our best to secure strong backing for our most worthwhile programs and our most exciting ideas.

Softball

Dick Ruffing

Brookhaven League

Blue Jays 12

Oldtimers 8

Only two extra base hits for the Jays, but the singles came when they were needed. Score was tied at 8 all when the Jays scored 4 runs in the sixth to win. B. Meier and "Doc" Carsten both had a 3 for 4 evening.

The Dirty Sox defeated Metallurgy but the score was not reported.

On Thursday evening the Blue Jays defeated Metallurgy 14 to 9. Once again the little singles came at the opportune times. Tom Prach, Bob Meier and Harold Marshall had 2 for 3 evenings.

No score reported on the game between the Oldtimers and the Dirty Sox.

National League

No scores reported.

Laboratory League

No scores reported.

University League

The Different Strokes defeated the Odd Couples in a very close game 12 to 11. Dave Schweller and Tom Reisig each had a homerun.

The Gotchas won a double header over the Oh Kays 16-10 and 11-9. In the first game Bill Kropp had a homerun and a triple. Pat Oster had a 2-run double. George Morgan had a triple in the second game. Two good ball games for the Gotchas.

Hospitality News

The Hospitality Committee cordially invites all ladies to a morning coffee on Wednesday, June 27, from 10-12 in the Recreation Building in the Apartment Area. Everyone welcome. Bring the children.

odds are, that if you use a little optimism, we'll probably have the highest year of all in fiscal '75.

In closing, if you will permit me, I would like to express my appreciation to the many people here at the Laboratory who get involved in preparing our many budget request documents, for their help and cooperation in this endeavor. In particular, while I have thanked them privately, I would like to express my thanks publicly to the five members of my staff who worked extremely hard for these past many months in preparing the Laboratory's budget submission for FY 1975.



Senator Olympio Borja, Congress of Micronesia, poses for a picture with his hosts at the BNL Medical Research Center. Left to right are: Dr. Eugene Cronkite, Chairman of the Medical Department; Borja; Associate Director Dr. Victor P. Bond; and Dr. Robert Conard, who makes annual examinations of Marshallese who were exposed to fallout radiation.

Folk Dance Workshop

Starting Wednesday, June 27, we hope to organize an international folk dance workshop. This will be held from 8 to 10 p.m. at the recreation building in the apartment area. The workshop will start with Turkish folk dances. However if any one wants to bring his own music and teach other folk dances, it will of course be welcomed.

Turkish folk dances are among the most colorful in the world. They vary widely with respect to music, movements and costume. Almost every town in Turkey possesses its own variants but they usually are classified according to the province of origin. Turkish dances are not nearly as well known in this country as are the European dances. We hope to make them more familiar. These dances will be illustrated and taught. At the first meeting slides will be shown illustrating Turkish dance and costume.

Though the emphasis will initially be on Turkish dance, if enough interest is shown, some of the more familiar European ones will be taught as well. Everyone is welcome. If enough people participate, the folk dance workshop will continue weekly during the summer. For more information call Ali Usanmaz, ext. 3050.

Save Friday Nights For The Movies

Fortunately the Recreation Office has arranged a series of films that have been scheduled for seven Fridays in July and August.

The first will be at Berkner Hall on July 13th.

Watch the *Brookhaven Bulletin* for details.

Selected Reading

- Nat. Bur. Stand. (U.S.), Tech. News Bull. 57, May 1973
The ultimate contribution of nuclear activation analysis. 108-11
A look at total energy systems. 122-3
- New Sci. 58, June 7, 1973
The tender youth of technology assessment. M. Kenward. 613-14
A view from The Hague. C. Wood. 614-15
Dr. Ray wins her first round. 628
- Phys. Today 26, June 1973
High-energy physics horizons. Erratic funding procedures are the main obstacle to further advances. W.K.H. Panofsky. 23-5+
- Science 180, June 15, 1973
Energy: Shortages loom, but conservation lags. C. Holden. 1155-8
Watergate fallout: Administration quakes, science sneezes. D. Shapley. 1157

CREF Unit Values

1972			
January	\$48.27	February	\$50.49
March	51.36	April	51.80
May	53.74	June	51.80
July	51.15	August	51.95
September	50.98	October	50.80
November	52.53	December	53.25
1973			
January	\$50.36	February	\$47.11
March	46.44	April	43.69
May \$42.06			

Tennis Clinic

The tennis committee has decided to sponsor a tennis clinic again this year.

Employees, including summer guests, and their spouses are eligible to enter for a fee of \$5.00 per person which will be used to cover the cost of tennis balls and other general expenses.

The clinic will be held on Saturday mornings from 9-11 and will run four weeks (July 7, 14, 21, and 28). The tennis courts will be reserved for the clinic on these four Saturdays and will therefore be closed to normal play.

In case of rain, the clinic will be held on Sunday at the same time.

Those wishing to enter should sign up at the BERA Sales and Services Office at the Cafeteria starting Monday, June 25th. Registration will be limited to 48 on a first-come, first-served basis.



Cafeteria Menu

Week Ending June 29, 1973

Monday, June 25	
Cream of Mushroom Soup	
Roast Fresh Ham & 1 Veg.	.99
Broiled Chicken & 1 Veg.	.95
Western Omelet w/French Fries	.90
Tuesday, June 26	
Mulligatawny Soup	
Grilled Ham w/Sausage & Pineapple & 1 Veg.	.95
Chicken a la King on Noodles	.95
Sauerbraten w/Potato Pancakes	1.05
Wednesday, June 27	
Yankee Bean Soup	
Baked Beef Loaf w/Gravy & 1 Veg.	.90
Tunafish Baked w/Noodles & 1 Veg.	.99
Polish Kielbasy w/Mashed Potatoes & Sauerkraut	.90
Thursday, June 28	
Beef Barley Broth	
Beef Hash w/Brown Gravy & 1 Veg.	.85
Baked Lasagna w/Meat Sauce & 1 Veg.	.95
Broiled Chicken Livers w/Bacon Strips & 1 Veg.	.90
Friday, June 29	
New England Clam Chowder	
Fish & Chips	.95
Poached Filet Sole & 1 Veg.	.99
Chili Con Carne on Rice	.95

IBEW Meets June 28

Local 2230 IBEW will hold its regular monthly meeting on June 28, 1973 at 8 p.m. in the K of C Hall, Railroad Avenue, Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

BROOKHAVEN BULLETIN

Published Weekly for the Employees of Brookhaven National Laboratory

CARL R. THIEN, Editor
CLAIRE LAMBERTI, Editorial Assistant

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Telephone (516) 345-2345

Tennis Tournament

The 1973 BERA tennis tournament is scheduled to start July 10. The BERA tournament is a simple elimination (one and out), and is limited to employees and their spouses. Summer staff and students working at BNL, who will be here during the entire tournament period (about 5 weeks), are eligible.

Register now at the BERA Sales & Services Office at the Cafeteria between 7:30 – 11:15 and 11:45 – 2:30. Entry fee is 50¢. Registration deadline is July 6. Provided there are sufficient entries, competition will be in the following events:

- 1. Men’s Singles
Open to employees only
- 2. Women’s Singles
Open to employees and wives of employees
- 3. Men’s Doubles
Open to employees only
- 4. Mixed Doubles
Open to employees and/or spouses

Detailed tournament rules will be available at registration.

For any questions call the tournament chairman Allan Auskern, extension 3029, or assistant tournament chairman James Brandon, extension 3516.

Theatre Group

Rita Straub, Gerhart Friedlander, and Bob Marr, members of the nominating committee, have announced a slate of candidates for the Theatre Group.

President Pat Campbell
Vice President Bob Kinsey
Secretary Graham Campbell
Advisory Chairman .. Jerry Friedman
Program Chairman Ron Peierls
House Chairman Stan Lowell
Publicity Iris Mastrangelo

Elections will be held at the June 26 meeting at 8 00 p.m. in the Theater. Nominations from the floor will be accepted for all posts.

The second major item on the agenda is discussion of possible productions and programs for the coming year.

Old and new members are encouraged to attend this important meeting.

Swimming Pool

Swimming Pool season tickets are now on sale at the BERA Sales & Services Office and at the Swimming Pool. The current season started on June 17 and will extend to September 1.

The schedule will be as follows:

Weekdays
12:00 – 1:00 p.m. – Employees only
1:00 – 2:30 p.m. – Swimming Instructions
2:30 – 9:30 p.m. – Employees, Family, Visitors

Saturday-Sunday
1:00 – 6:00 p.m. – Employees, Family, Visitors

Admission Fees
Daily Tickets
Employee or Family Member 50¢
Visitors 75¢
Season Tickets
Employee or Family Members \$10.00
Family (Immediate Family*) 20.00

*Members of employees family residing in his or her house-hold.

Children’s Summer Program

Don’t forget to sign your youngsters up for the Children’s Summer Program.

Swimming lessons will be open to all employees’ children, and athletic play sessions will be available to on-site residents’ children.

The programs, which will be held at the Laboratory, are scheduled to begin on July 9.

Applications and information are at the BERA Sales and Services Office at the Cafeteria, extension 3347.

Free Record Dances

If you like people and an opportunity to dance, all you have to do is come, dressed comfortably, to the Recreation Building on Thursday evening.

There is no admission fee and if you choose, your investment can be zero. There is a supply of records on hand, but if you have other ideas, bring your own discs or 8-track tapes.

The times are 8:30 to midnight and refreshments are available for purchase.

Classified Advertisements

Placement Notices

Each week, the BROOKHAVEN BULLETIN lists personnel placement requisitions currently being processed. The purpose of these listings is, first, to give notice of all non-scientific staff positions being filled and, second, to give employees an opportunity to request consideration for themselves or others whom they wish to recommend to BNL. In filling vacancies, the Laboratory’s objective is to give first consideration to present employees, as follows: employees within the immediate group having the vacancy, employees within the department or division, employees within the Laboratory as a whole. For further information regarding a placement notice, please contact Employment Supervisor, extension 2879 or 2882.

CUSTODIAN - Plant Engineering Division
REGISTERED NURSE - Rotating shifts. Medical Dept.
SECRETARY - Half-time. Department of Applied Science.
SECRETARIES (2) - Medical Department.
SECRETARY - Office of Scientific Personnel.
SUPERVISOR - Computer Maintenance Group. Applied Mathematics Department.
TECHNICIAN - Department of Applied Science.
COMPUTER MAINTENANCE TECHNICIANS - Shift work. Extensive experience in Control Data 6000 computers and peripheral equipment required.
TECHNICIAN - Instrumentation Division.
TECHNICAL SPECIALISTS (2) - Biology background with experience in hematology. Medical Department.

Autos & Auto Supplies

TIRE RIMS - 2 used 7.00x13. H. Susskind, Ext. 4465/4461.
2-13” RIMS - 5 holes. \$3. O. Booker, Ext. 4719.
69 JEEP - 4 w/d, 4 dr special deluxe station wagon, bckgs, auto, air cond, ps/pb, r/h, ski rack, 4 new snows, rear defroster, 45,000 mi. \$2400. Chet, Ext. 3612, 289-7058 after 6.
4 TIRES - Firestone 500, H78-14, used less than 500 mi. \$15 ea or 4/\$60. Carson, Ext. 3293.
70 OLDS 442 - Ps/pdb, 4 sp, posi, all new rubber, excel cond, must sell. \$1900. 981-0210.
64 BUICK LE SABRE - 410 V8, air cond, needs tires. \$175. Pat, 924-8539.
64 PONTIAC LEMANS - 3 spd, 70,000 mi, body excel. \$300. Ext. 3798.
14” WHEELS - Chevy, Pontiac, \$5/pr; 15” wheels, VW 5 hole, \$5/pr; 12v GM generator, \$7; all good cond. R. Glassman, Ext. 4652, 289-0357.
71 TOYOTA CORONA - Std shift, r/h, air cond, new tires, leaving, must sell. \$1400. Gerard, Ext. 4375, 744-6509.
70 VW AUTO TRANS - A-1 cond, \$125; front & rear bumpers, brand new, fit 58-65 VW, \$20 ea. Ext. 3201, 924-3338.
68 LE SABRE - Motor excel, body good, 2 snows, 70,000 mi, ps/pb, am radio. \$1200. Pat, Ext. 4763, 589-2648 after 6.
67 CHRYSLER NEWPORT - Very good cond, air cond, 2 good Pirelli extra tires. \$595. Ext. 4897.
14” MAGS - W/tires, F70-14. \$65. Ext. 2470.
2-6.50x13 TIRES & RIMS - Sears Crusader, good tread left. \$10/both. Nick, Ext. 2534.
326 CU IN 285 HP ENG - GM type, rebuilt w/reconditioned heads, bell housing for auto or std, plus parts. \$200. Reilly, 744-8680.
64 CHEVY SUPER SPORT NOVA - Very good cond; 69 Dodge wagon, loaded. 363-7032.
64 DODGE DART - 6 cyl, std trans, good cond. P. Meyers, Ext. 4357, 286-8379.
69 ROADRUNNER - 383, 4 spd, wide ovals, blk on blk. \$1400. Vic, 727-0054 after 6.
PR MOUNTED SNOWS - 8.45x15, excel cond. \$40. Ext. 3808.
68 ROVER 2000 TC - New trans & muff, 42,000 mi, good cond, must sell. Asking \$1000. A. Sessoms, Ext. 3808.
69 FURY III - 2 dr htdp, std trans, 383 eng, new batt, brakes, muff, etc., body & eng very good. B. Museler, Ext. 4280.
H.D. SHOCK ABSORBERS - VW, fits 53-65 Beetle & Ghias 1200 series, 7 settings, brand new, 2 pr. \$25. P. Wilson, Ext. 4602.
65 LAND ROVER - Compl rebuilt, excel shape. \$1900 firm. Ext. 3047.
6V BATT FOR VW - \$10; 1 yr old car radio, 6v, for VW, \$10. John, Ext. 4547.
63 VW BUG - Was in accident, good for parts, best offer. John, Ext. 4547.
Boats & Marine Supplies
15’ HIGH-BOW ROWBOAT - Fiberglass bottom, good clam boat, \$75; 18 hp Evinrude, very dependable, tank, extra prop, \$75. 878-0079.
16’ CRUISERS LAPSTRAKE - Fully equipped, 1971 Johnson electromatic 40 hp, Holsclaw tilt trailer. R.J. Connolly, Ext. 2495.
SCORPION - Fiberglass sailboat, fast, safe, excel cond. \$350. 286-0798.
14’ ALCORT SUNFISH - White & blue, good cond. \$300 firm. B. Museler, Ext. 4280.
BOAT ANCHORS - 15lbs, \$8; 10 lbs, \$5. Bob, Ext. 4490.
17’ CRUISER INC RUNABOUT 1959 - 50 hp electro-matic, navy top, aft cover, 20 gal fuel tank, in water, ready to go. \$800. L. Kukacka, Ext. 3065, 473-1157.
ALCORT SUNFISH - Like new, nylon rigging, jamcleot, sailbag, paddle, sturdy hand trailer. \$425. Ext. 4240, 286-0295.

20’ WOODEN SLOOP - New dacron sails, \$300; 5 hp outboard, \$70. Ext. 4760, 744-2688.
17’ DEEP VEE FIBERGLASS - ’70 Evinrude 85 hp, Lil Dude trailer. 928-2954.
21’ SHOREBIRD - Gaff rig sloop, f/g over wood, compl equipped, 4 hp Evinrude OB (10 hrs old). \$700. Ben, Ext. 2902.
LIGHTNING 11604 - Helms, s/s board, Helms trailer, main, jib, 2 spinnakers, many other extras. Ext. 4032, 751-1660.
NAUTOLEX DECKING - White, 12 yds x 72”w. Mike, Ext. 4613.
SUDBURY AQUA-CLEAR FEEDER - 3” I.D., \$20; 2 Michigan propellers, r/h & l/h, 16”x16”, 1” shaft, \$25 ea. Mike, Ext. 4613.
CHRIS CRAFT EXPRESS CRUISER - Hard top, 185 hp V8, radio, D/F, extras, dockage pd. \$1600. Mike, Ext. 4613.
17’ CUSTOM BUILT BOAT - 40 hp Evinrude, Holsclaw trailer, many extras. Ernie, 588-4987.

Miscellaneous

GIRL’S BIKE - 24” Rollfast, old but good. \$20. 281-7844.
BEDSPREADS/DRAPES - 2 sets; 3-tone red & 1 gold/blk dbl s ize, excel, \$20 ea; 14”, 2-spd fan, \$7; window fan, 24-36”, twin 10” reversible, \$7. 281-8557.
SPRINGFIELD-SAVAGE SHOTGUN - 12 ga, fine for hunting, \$60; Winchester model 94 30-30 mint, 20 rounds fired, \$75. 924-8296.
GE WASHER/DRYER - 3-4 yrs old, excel working order, \$75 ea or \$125 both; glass cabinet, \$50; dish set, cost \$65, sell \$50. 924-8296.
MOBILE HOME IN FLORIDA - 1972, 72x12, 3 bedrms, 2 full baths, lived in 6 mos, unfurn. Sal, 878-2486.
IBM ELEC TYPEWRITER - Model B, executive, good cond. \$125. Ext. 4422, 289-0538 eves.
DOORS - Screen, alum, 36¼x80¾ & 30¼x80½. \$20 ea. 744-5871.
KODAK MOVIE CAMERA - F1.9, pwr zoom w/Sylvania 625 w quartz lamp. \$50. Steve, 286-0534.
PONY - Beautiful, gentle, 6 yrs old. \$50. 732-4101.
TV - Needs minor repair, sell cheap; very old (78) phonograph records. O. Booker, Ext. 4719.
MATTRESS - Englander red-line dbl box spring & latex matt in good cond. \$25. 941-4328.
DESK - Mag 36x77 glass top, 7 drawer, \$175; formica china closet, \$40; lamp table. 475-7398 after 6:30.
25-¾” EXTERIOR PLYWOOD - 25-2x4’ \$100 takes all. 751-2067.
3 BOYS’ BIKES - 2 Columbia 20” hi rise, hand brakes, 3 spd, \$20 ea; 1 Rollfast 20” hi rise, coaster brakes. Dominick, Ext. 3954.
KEYSTONE MOVIE PROJECTOR - 8 mm, self threading, zoom focus, mint cond. \$40. Bob, Ext. 3121.
SLEEPER/STROLLER - High chair, car seat. \$15 takes all. 473-8011.
SNARE DRUM & STAND - 1 stick. \$10. Pat, 924-8539.
ROLLEIFLEX CAMERA - Old but good. \$25. K. Fuchel, Ext. 4116.
FREE TO GOOD HOME - Husky, spayed female, beautiful, well trained, affectionate, good w/children. Saxon, Ext. 3435.
RUGS - Rust wool 13’x15’, \$50; blue/green tweed stair runner, \$20; very good cond. 286-0428.
BOX SPRING & MATT - Foam rubber, excel cond, \$35; antique English brass fireplace andiron set, \$35. Ext. 4118, 928-5714.
FURN CLEARANCE - Round table (pine), chairs (walnut), dresser, bed, sofa, Wharfedale 70 speakers, plants, etc. Cheng, Ext. 3414, 281-6126.
LAWNMOWER - 24” self-propelled Yazoo, recently rebuilt, too big for children. \$100. 286-0798.
GOLF CLUBS - Wilson staff proline 1-3-4 woods, 2-9 irons P.W. reg steel shaft. \$150. B. Vogt, Ext. 4241, 584-5198.
MOTORCYCLE HELMET - W/visor. \$15. Russ, Ext. 3396, 924-4453.
TATAY GUITAR - \$110; Morse stereo, excel cond, \$200; small frig-4.5 cu ft, very good cond, excel for den, studio apt, etc., mahog finish, \$60. Alan, 286-1454.
CREE TRAVEL TRAILER - 18’ self contained, gas stove/oven, gas refrig, sleeps. 325-1961.
GASS LEAD STOVE & POT - Gasoline torches, metal bending forms, stove pipe making tools. M. Greene, Ext. 4484.
TRAILER HITCH - W/sway bars. Asking \$65. Reilly, Ext. 3254.
KUSTOM BOTTOM - \$300; 3-15” speakers, blue padding w/covers, excel cond, asking \$150. Reilly, 744-8680.
MAN’S BICYCLE - 26”, needs tires & minor work. \$10. 286-9260 eves.
SLR CAMERA - Ext w/plugin in Ludwig f-2.9 lens & plug in viewer w/magnnifier, GE sensitive light meter, excel cond. \$35. Ext. 4240, 286-0295.
AIR COND - Old model, heavy, but might be good for a sm area, any offer. Ext. 4156.
MODEL AIRPLANE RACING ENG - Made by Enya, compl factory hand lapped, size 0.19 cu in w/muff, new. \$10. Ext. 4240, 286-0295.
HEATHKIT MONO SYSTEM - W/RC88 Garrard changer, 4 way speaker w/15” woofer pre-amp, am/fm tuner, amp, cabinet. Drucker, Ext. 3432, 473-1620.
KEYSTONE MOVIE PROJECTOR - Regular 8 mm auto-threading, instruction mannual & reel. \$18. George, Ext. 4447, 588-5228 after 6.
SCIENCE & SCIENTIFIC AMERICAN - Recent issues (last few yrs), avail free. M. Schneider, Ext. 4581.

NEW ZEALAND WHITE MALE RABBIT - \$2. Vic, 727-0054.
DOBERMAN PINSCHER - Excel watchdog, blk, 1½ yrs. A. Sessoms, Ext. 3808.
7’ SOFA - Excel cond. \$22. Ext. 4760, 744-2688.
AKC POODLE PUPPIES - Adorable, ready in 2 wks. 289-0524 after 5.
GE WASHER/DRYER COMBO - Front loader, 1 yr old. Orig cost \$400, sale \$150. C. Buzzeo, Ext. 3499.
CEILING LAMP - Perf for din rm, \$15; round mahog coffee table, glass covered, \$25. 744-9822 after 6.
BEDRM SET - Single maple bookcase headboard, dresser, desk, chair, mirror, as set or pcs. Ext. 3047.
HUMIDIFIER - Lg volume, 1 yr old. \$35. Ext. 4032, 751-1660.
GARRARD SL65 AUTO RECORD CHANGER - W/Shure 44 cartridge, works perfectly. \$40. 941-4328.
DIN TABLE - Heywood/Wakefield, dropleaf, spoon-foot, rock maple, fruitwood fin, seats 8-10, mint cond. \$100. Lou, Ext. 2480.
SWIVEL ROCKER - \$10; webbed playpen, \$5; 10 gal aquarium & stand, \$8; kitchen set, \$20. HR3-4555.
TRAYNOR BASS AMP - \$55; Leslie portable speaker, \$65. Ext. 2470.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

PORT JEFF STA - 3 bedrms, 1½ baths, lg kitchen, 20’x 22’ fam rm w/fireplace, many built-ins, ½ acre. 473-4555.
STONY BROOK - 4 bedrm colonial, 2½ baths, 2-car garage, fully carpeted, fine cond, pleasant area. \$41,500, 6% mort. 751-6372.
PATCHOGUE VILLAGE - Liv rm w/fireplace, 3 bedrms, 7 closets, 2 baths, knotty pine kitchen, game rm w/brick bar, 2-car garage, 15’ swimming pool, 98 x 100’ lot. \$29,000. Ext. 4277.

For Rent

PORT JEFF-SUASSA PARK - Furn, 1 bedrm, liv, din, breakfast rm on wooded lot, walking distance marina & shops, avail 8/1/73-9/9/73. \$300. 928-1531.
2½ RM APT - Priv entrance, gentleman only. \$135/mo w/util. Ext. 2311.
FURN RM - Kitchen privileges. W. Lundgren, Ext. 3800, 585-3794.

Wanted

USED FREEZER - Med size, sm air cond, reasonable. Fred, Ext. 3396.
GIRL’S RIDING HAT - Good cond. MacKenzie, Ext. 4490.
HOUSE RENTAL - 2-3 bedrm house for 2 adults & 2 children, min 1 yr lease. John, 363-6063.
HOME - For female 2½ yr old German Shepard, loves children, must have fenced yard. Lois, 929-4753.
HOME - For beautiful stray female police/collie combo, hate to have her destroyed if not able to find good home for her. 924-3338.
SUNFISH HULL ONLY - 475-6633 days, HR2-0039 nights.
PLAYPEN - Sturdy, reasonable cond. 286-1528.
GARAGE - Student needs storage for antique car in Holbrook, Ronkonkoma area - cheap. 588-4766.
3-WHEEL BICYCLE - Woman’s, reasonable. Ext. 4156.
MOTHER’S HELPER - For several hrs M-F, also occasional babysitters day & eve, Brkhn apts. Rabin, Ext. 3070.
MUSICIANS - Call Ext. 3400 to find that accompanist or learn about plans for informal summer music, from string quartet to madrigals.
3-4 BEDRM FURN HOUSE - From July 1 to Aug 5, close to Lab, urgent. Ext. 3180.

Carpools

DRIVER WANTED - To compl carpool to Huntington. Irv, Ext. 4581; Frank, Ext. 3270.
OCCASIONAL RIDE WANTED - From Riverhead hospital area, will pay for gas. Bob, Ext. 4324.

Services

TREE WORK - Pruning, topping, etc., free estimates; also light hauling. Gary, 744-1548.
HOUSE PAINTING - Young experienced painters, by the hour or job, estimates given. Roger, 941-9081.
HATHA YOGA FOR WOMEN - Relaxation, breath & body control through Yoga postures, sm classes, day or eve. HR2-1397.
GARAGE SALE - Many items, junk & gems, Fri 6/22 thru Sun 6/24, 173 Swan Lake Drive, Patchogue. Ext. 4255.
COLLEGE GRAD STUDENT - Will do lawn work & odd jobs. Dave, Ext. 4697, EM3-7074.
KEY & LOCK WORK - House, boat & car keys made; locks keyed alike or changed. Charlie, Ext. 2954, 744-3312.
CHEMICALLY CLEAN YOUR CESSPOOL - \$25 for 15 gal of professional chemical, we put it in. 289-0565.
BLACKTOP PROBLEMS - R. Safranek, 475-4382.
BACKYARD SALE - At 531 S. Ocean Ave, Patchogue, June 22, 23, 24, from 10-5, all kinds of bargains, everything must go. Mrs. Huq, 289-6676.
COUPLES OR GROUPS TO 6 - Eve or wekend cruises out of E. Hampton, dinner res avail; charter fishing out of Gardners Bay, E. Hampton. John, Ext. 4666, 324-4788.
TREE REMOVAL &CHAIN SAW WORK - Also light hauling, free estimates. Ken, 289-8212 eves.